

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

1 Claim 1 (Currently Amended). An optical fiber collimator comprising:
2 a rod lens having an inclined surface;
3 an optical fiber; and
4 an optical fiber chip arranged at a distance from said lens, said
5 optical fiber chip holding an end portion of ~~an~~ said optical fiber and having
6 an end surface treated to be inclined, wherein an optical axis of said optical
7 fiber is eccentric with respect to a center axis of said rod lens to thereby set
8 a quantity of eccentricity of said optical fiber so that the center of said rod
9 lens substantially coincides with a center of a light beam incident on said
10 rod lens from said optical fiber, and wherein an optical path of the optical
11 fiber is eccentric with respect to a center axis of the optical fiber chip.

1 Claim 2 (Currently Amended). An optical fiber collimator according to
2 claim 1, wherein said rod lens is a gradient index rod lens ~~in which a~~
3 ~~surface facing said optical fiber is treated to be inclined.~~

Claim 3 (Canceled).

1 Claim 4 (Original). An optical fiber collimator according to claim 1,
2 further comprising a cylindrical member which has a lens holding hole and
3 an optical fiber chip holding hole formed so that the axes of said holding
4 holes are shifted from each other, said lens and said optical fiber chip
5 being inserted and fixed in said holding holes respectively to thereby be
6 incorporated in said cylindrical member so that said optical fiber chip is
7 made eccentric with respect to the center of said lens in a condition that
8 said optical fiber is inserted and held in an optical fiber insertion hole

9 in an optical fiber insertion hole formed in a center of said optical fiber
10 chip.

1 Claim 5 (Currently Amended). An optical fiber collimator comprising:
2 a rod lens having an optical axis and an inclined surface;
3 an optical fiber having an optical axis and an inclined end surface;
4 and
5 a holding member which holds the inclined surface of said rod lens
6 and the inclined end surface of said optical fiber in confronting relation
7 and spaced from one another a predetermined distance so that the optical
8 axis of the optical fiber is located at an eccentric position with respect to
9 the optical axis of the rod lens.

1 Claim 6 (Original). An optical fiber collimator according to claim 5,
2 wherein the holding member includes a cylindrical optical fiber chip
3 having a center and holding the optical fiber so that the optical axis of the
4 optical fiber is located at an eccentric position with respect to the center of
5 the cylindrical optical fiber chip.

1 Claim 7 (Currently Amended). An optical fiber collimator according to
2 claim 6, wherein the holding member further includes a cylindrical
3 member holding the rod lens and the optical fiber chip so that the rod lens
4 and the optical fiber chip are concentric with respect to each other.

1 Claim 8 (Currently Amended). An optical fiber collimator according to
2 claim 7, wherein the rod lens ~~includes~~ is a gradient index rod lens.

Claim 9 (Canceled).

1 Claim 10 (Original). An optical fiber collimator according to claim 5,
2 wherein the holding member includes a cylindrical optical fiber chip
3 having a center and holding the optical fiber on the center thereof, and a
4 cylindrical member holding the lens and the optical fiber chip so that the
5 optical axis of the lens is located at an eccentric position with respect to
6 the center of the optical fiber chip.

1 Claim 11 (Currently Amended). An optical fiber collimator according to
2 claim 10, wherein the rod lens ~~includes~~ is a gradient index rod lens.

Claim 12 (Canceled).

1 Claim 13 (Currently Amended). The optical fiber collimator of ~~Claim~~
2 claim 1, wherein the optical fiber chip and the rod lens have equal outer
3 ~~diameter~~ diameters.

1 Claim 14 (Currently Amended). The optical fiber collimator of ~~Claim~~
2 claim 1, wherein the optical fiber chip and the rod lens have different outer
3 diameters.

1 Claim 15 (Currently Amended). The optical fiber collimator of ~~Claim~~
2 claim 2, wherein said rod lens has a maximum outer diameter which is
3 substantially equal to an outer diameter of the optical fiber chip, and
4 wherein the rod lens and the optical fiber are secured to each other with a
5 cylindrical member having a constant inner diameter.

1 Claim 16 (Newly Added). The optical fiber collimator of claim 2, wherein
2 a refractive-index distribution of the rod lens is given by:

3
$$n(r)^2 = n_0^2 \{1 - (g \bullet r)^2\},$$

4 where $n(r)$ is a refractive index in a position at a distance r from a center

5 axis of the rod lens, n_0 is a refractive index on the center axis, and g is a
6 quadratic refractive-index distribution coefficient.

1 Claim 17 (Newly Added). The optical fiber collimator of claim 1, wherein
2 the inclination angles of the surfaces of the rod lens and the optical fiber
3 chip and optical fiber are in a range from 4 to 8 degrees.

1 Claim 18 (Newly Added). The optical fiber collimator of claim 1, wherein
2 a cylindrical member having a through cavity in which said rod lens and
3 said optical fiber chip are inserted from opposite ends thereof so that the
4 inclined surfaces of the rod lens and the optical fiber chip and optical fiber
5 are confronting and spaced from one another a predetermined distance.

1 Claim 19 (Newly Added). The optical fiber collimator of claim 5, wherein
2 a cylindrical member having a through cavity in which said rod lens and
3 said optical fiber chip are inserted from opposite ends thereof so that the
4 inclined surfaces of the rod lens and the optical fiber chip and optical fiber
5 are confronting and spaced from one another a predetermined distance.

1 Claim 20 (Newly Added). The optical fiber collimator of claim 5, wherein
2 an optical path of the optical fiber is eccentric with respect to a center axis
3 of the optical fiber chip.

1 Claim 21 (Newly Added). The optical fiber collimator of claim 5, wherein
2 the optical fiber chip and the rod lens have equal outer diameters.